

Water Data Interactive: Groundwater Data Viewer and Major Aquifer 3D Viewer

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TWDB Groundwater-Related Databases

- Groundwater Database (GWDB)
 - Submitted Drillers Reports (SDR) Database
 - Brackish Resources Aquifer Characterization System (BRACS) Database
-
- Some wells exist in all three databases
 - Working on system to “bridge” the data between sets

Groundwater Database (GWDB)

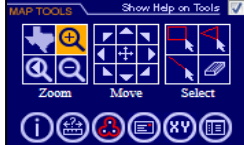
- Main purpose to collect and store data to help identify the natural properties of the aquifers in Texas
 - Water levels, water quality, geophysical logs, etc.
- Mostly legacy data with about 10% of the wells visited by TWDB or cooperators for data collection

Submitted Drillers Reports (SDR) Database

- Cooperation with Texas Department of Licensing and Regulation Water Well Drillers and Pump Installers Program
- Well Reports and Plugging Reports
- Began data collection in 2001
- Well Reports previous to 2001 available at the Texas Commission on Environmental Quality Water Well Map Viewer

Brackish Resources Aquifer Characterization System (BRACS) Database

- Designed to store well and geology information in support of projects to characterize the brackish groundwater resources of Texas
- Compiles well information from several sources
- Currently limited to study areas in the state



- [Layers]**
- Visible Active
- ☐ Groundwater
 - ☐ Districts (updated Sept. 2013)
 - ☐ Major Aquifers
 - ☐ Minor Aquifers
 - ☐ Regional Water Planning Areas
 - ☐ Groundwater Management Areas
 - ☐ River Basins
 - ☒ Counties
 - ☐ Terrain Map

Search by State Well No.

Type a well number

[Go](#)

Search by Location

From: All

Type a place name

[Go](#)



[Disclaimer](#)



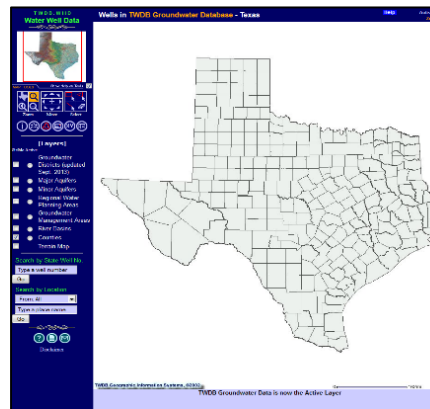
TWDB Geographic Information Systems, ©2002

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TWDB Groundwater Data is now the Active Layer

History

- The Water Information Integration and Dissemination (WIID) map viewer began development in 1997 with passage of Senate Bill 1, launched in 2001
- Multi-agency effort
- Over 14 years with no major upgrades or improvements



Groundwater Data Viewer Features

- Several new base maps and layers
- Advanced filtering of data sets
- Ability to export data of selected wells
- Works on smartphones and tablets
- Access to BRACS geophysical logs

Demo

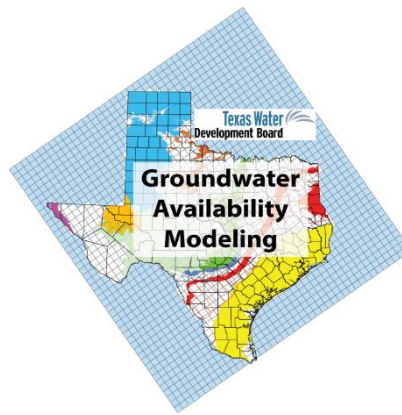
www.twdb.texas.gov/mapping/index.asp

www.twdb.texas.gov/groundwater/data/drillersdb.asp

www.twdb.texas.gov/groundwater/data/gwdbrrpt.asp

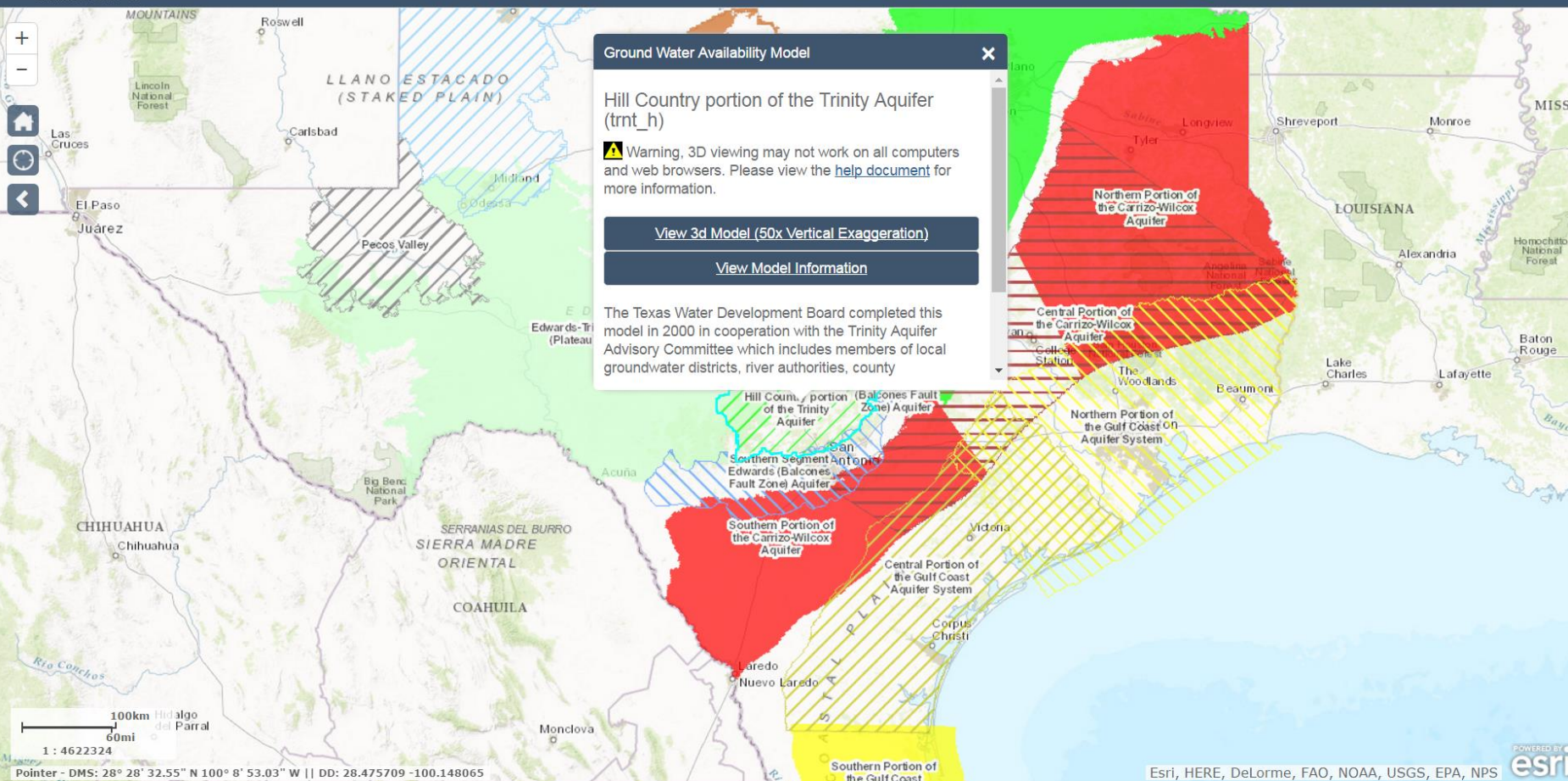
Major Aquifer 3D Viewer

- An interactive map viewer designed for use by the general public
- Leverages industry standard GIS 3D modeling software and delivers a 3D representation of eight Texas major aquifers
- Basic information on aquifers such as average surface elevation and aquifer thickness is accessible on a cell by cell basis



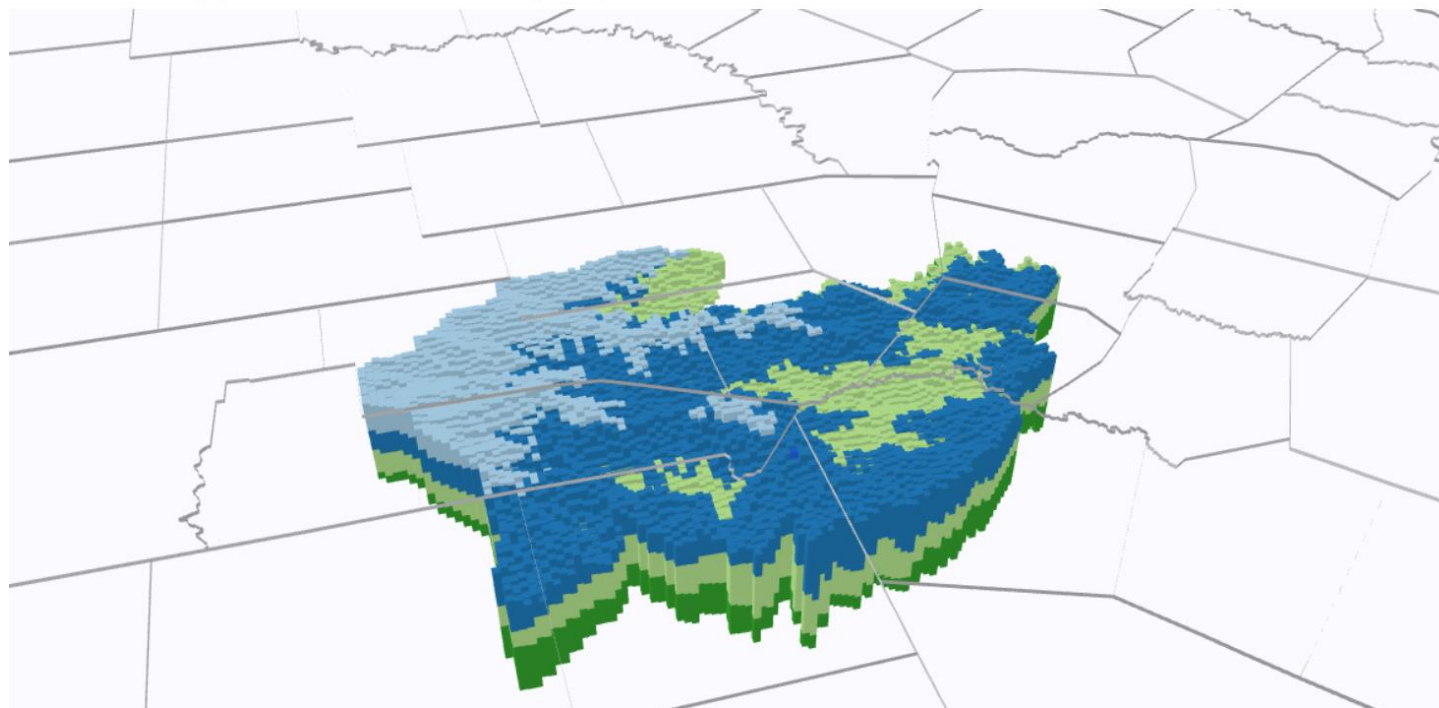
The data extracted and developed for this viewer is a subset of the TWDB's Groundwater Availability Modeling Program, which incorporates scientific data into the U.S. Geological Survey numerical groundwater flow modeling MODFLOW code. Full aquifer model data can be acquired by contacting the TWDB at: gam@twdb.texas.gov.

Note: Some of the Groundwater Availability Model source data required generalization for best usability over the web.



Hill Country portion of the Trinity Aquifer

SHARE HELP SIGN IN ARCGIS ONLINE



Information

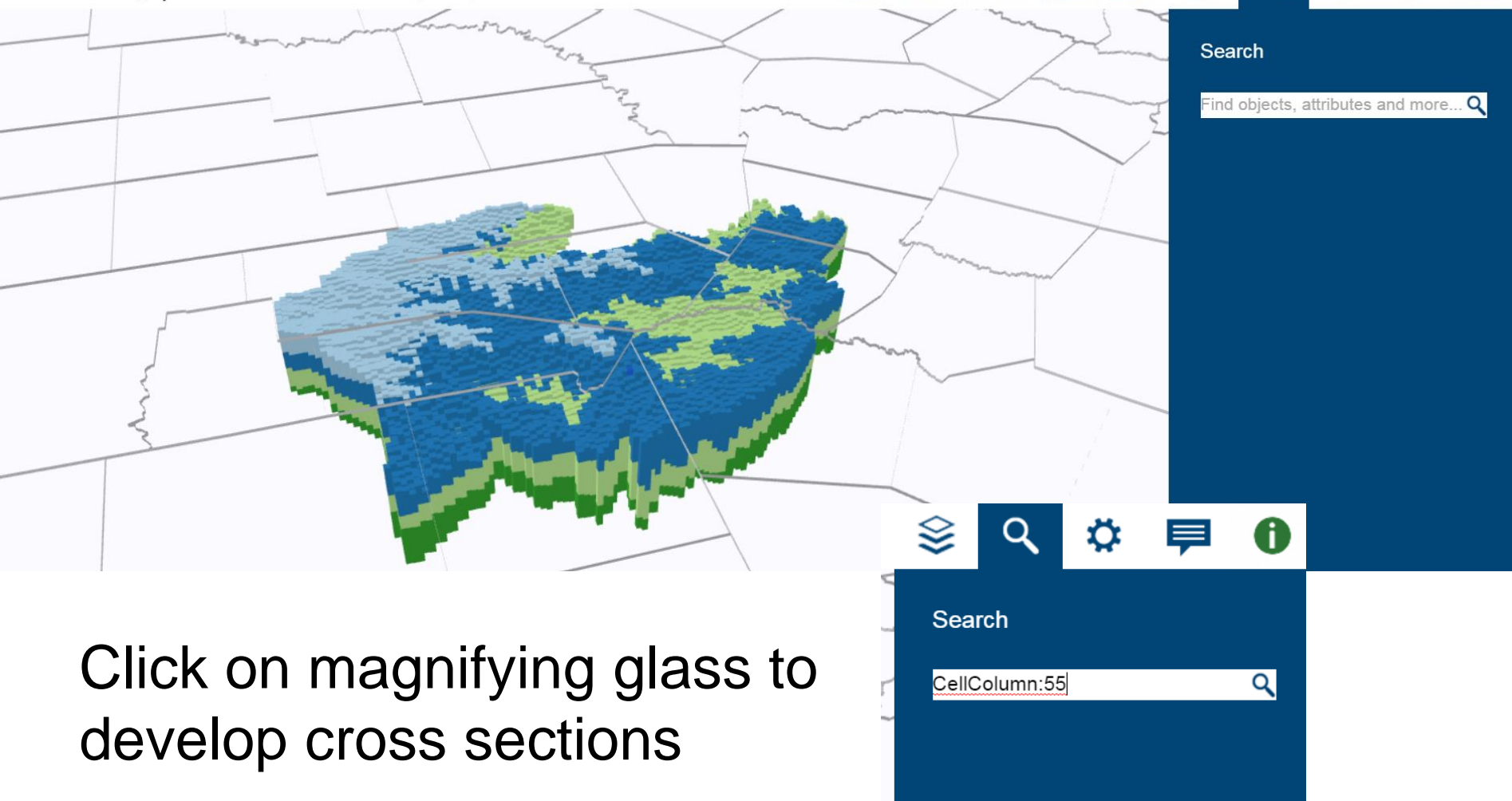
GAM Lyr 2-Upper Trinity_Gen149Shape3

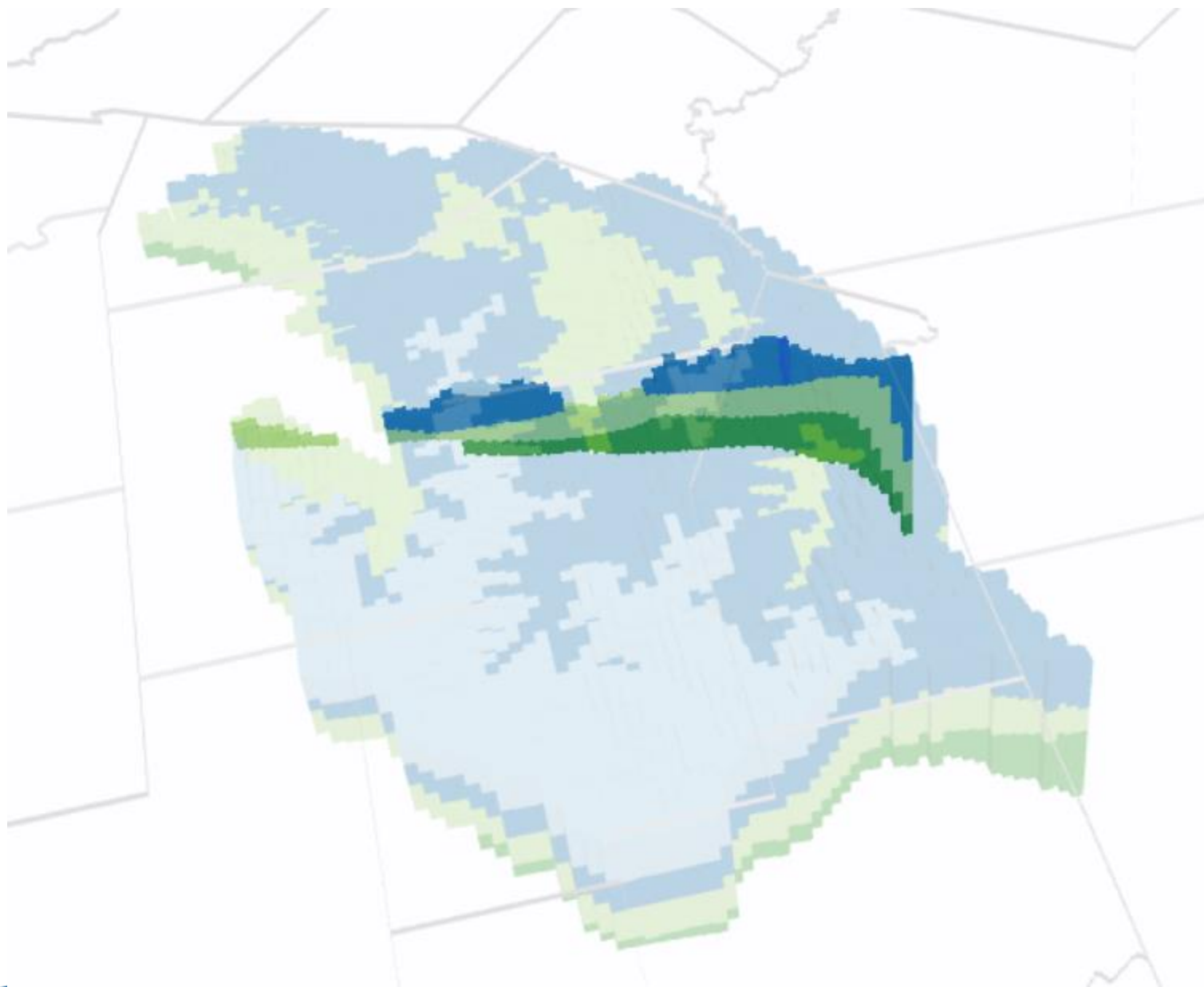
Attributes

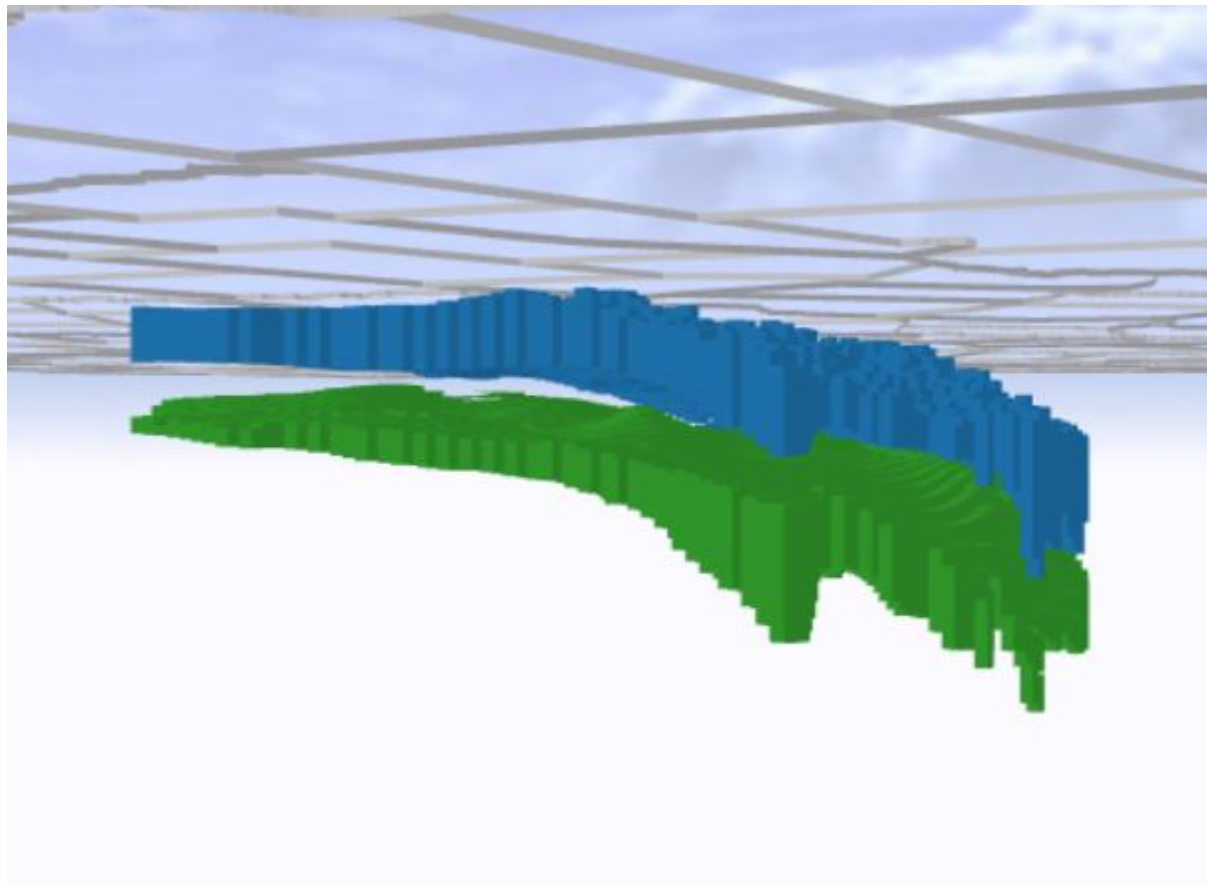
CellColumn	55
CellRow	55
County	Bandera
DEM(Average Surface Elevation)	1724
Layer 1 Bottom	Does not exist
Layer 1 Thickness	Does not exist
Layer 1 Top	Does not exist
Layer 2 Bottom	1223
Layer 2 Thickness	501
Layer 2 Top	1724
Layer 3 Bottom	856
Layer 3 Thickness	367
Layer 3 Top	1223
Layer 4 Bottom	392
Layer 4 Thickness	464
Layer 4 Top	856
Model Cell Id	1055055






Click on map to get elevation and layer thickness for a “cell”

Hill Country portion of the Trinity Aquifer














Layers

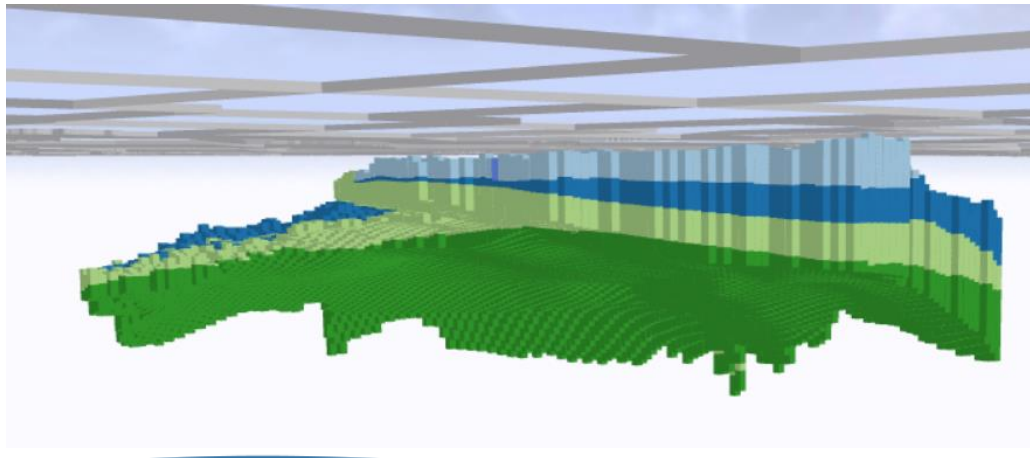
-  GAM Lyr 1-Edwards Group
-  GAM Lyr 2-Upper Trinity
-  GAM Lyr 3-Middle Trinity
-  GAM Lyr 4-Lower Trinity
-  Counties

On layer option, you can click layers on and off

Check Out Aquifers in 3D!

www.twdb.texas.gov/mapping/index.asp

www.twdb.texas.gov/groundwater/models/index.asp



Questions and Feedback

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